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Book Reviews

Cyberpunk

Katie Hafner and John Markoff, *Cyberpunk—Outlaws and Hackers on the Computer Frontier,* Simon and Schuster, (New York: 1991), ISBN 0-671-68322-5, 368 pages.

Cyberpunk has the kind of cover that makes a technocrat cringe. Clifford Stoll of *The Cuckoo's Egg* tells us this is "An astonishing story," the subtitle tells us we will learn about outlaws and hackers on the computer frontier. Open the cover, however, and the sensationalism disappears.

The authors of this book have impeccable credentials for reporting on the computer underground. Katie Hafner has worked for *Business Week* and John Markoff is a well-respected, well-known reporter for the *New York Times.* The two set out to tell us about the "social consequences of computer networks and the communities that have grown up around them."

Three stories

Cyberpunk tells three stories. It starts with the tale of Kevin Mitnick, a notorious phone "phreak" who plagued computer administrators in Southern California for many years. Next, the book describes "Pengo," a member of the Chaos computer club which Clifford Stoll made famous. Lastly, the book describes Robert Morris, author of the *worm* that ate the Internet.

Mitnick

Mitnick's story is truly a scary one. In a well-balanced, well-researched account, we learn much of the background of Mitnick and his maladjusted friends as they begin wreaking havoc in the phone company. As the phone company migrated towards computer-based control systems, Mitnick learned more and more about computer systems.

What is fascinating about this story is the extent to which *people* are the security hole in the phone system. Mitnick repeatedly used his social engineering skills to call up operators and get system passwords. Once on the systems, however, Mitnick demonstrated formidable hacking skills.

Perhaps the most interesting hack by Mitnick is his theft of the source code for the VMS operating system, directly off the development VAX Cluster in New Hampshire. Even more interesting is the fact that DEC security were repeatedly informed of this theft and stood idly by. Only when Brian Reid of the Western Research Laboratory was notified did DEC finally swing into action.

Pengo

The second story is about Pengo. While Clifford Stoll starts with himself and tells of his own exploits, *Cyberpunk* starts in Germany and tells us about how this all came to be. Stoll finally tracked down Markus Hess, one of the more benign members of the Chaos computer club. Pengo (his handle comes from a popular video game) was a more sophisticated hacker than Hess and was more deeply involved in cracking activities.

Through another member of the Chaos club, a cooperative arrangement was set up with the KGB through contacts in East Germany. Everybody thought they would get rich off selling software to the Soviets, but reality was a little more mundane. Real software was hard to get, so the members of Project Equalizer started selling public domain software to the Soviets. Being technically unsophisticated, the Soviets were happy to shell out moderate amounts of money. Selling software to the Soviets was, rhetoric to the contrary, no ideological crusade.

Instead, the members were trying to finance their own habits. One wanted to buy hash, another wanted to buy fancy meals. Pengo simply wanted to upgrade his computer equipment from a Commodore to a VAX, a nice little terminal from which to base cracking activities.

Robert Morris

The third story in *Cyberpunk* is that of Robert T. Morris. *Cyberpunk* gives us valuable background information about Morris and his father, a noted security expert (Morris senior helped write the password encryption mechanism in UNIX). Morris junior is no technical slouch, either: while a sixteen-year old intern at Bell Labs he developed a new version of *uucp*.

The description of the Morris worm is notable for its technically accurate, thoughtful description of law and ethics in the Internet. We see that Morris was simply an outgrowth of a culture that encouraged such work (although, granted, it encouraged less sloppy instances of such work). Hafner and Markoff help defuse some of the viciousness behind the Morris lynching in the computer community by showing us how this episode came to be.

Ranks with the classics

Throughout the book, *Cyberpunk* takes a balanced and remarkably accurate view. The authors are technically sophisticated and objective, making *Cyberpunk* a significant contribution to the field, in addition to being a fascinating story. *Cyberpunk* ranks with classics like Tracy Kidder's *Soul of a New Machine* in bringing to life the arcane underground of computer networks.

Devouring Fungus

Karla Jennings, *The Devouring Fungus: Tales of the Computer Age,* Norton (New York: 1990), 237 pages.

The Devouring Fungus is one of the funniest books about computers this reviewer has read. In a well-written compilation of jokes, stories, and other materials from a wealth of sources, Karla Jennings has created an extremely entertaining look at our industry.

Did you know how many IBM technicians it takes to change a tire? *The Devouring Fungus* tells us: it takes one to jack up the car and another one to swap out the tires until they find the flat. Or, did you hear about the computer scientist who was asked what he did for a living? "I teach UNIX" he said. "Oh, that's great," was the reply, "What do you teach them?"

Amaze your friends and bore your spouse with *The Devouring Fungus.*

—Carl Malamud

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